



Project Manager Tactical Radio Communications Systems

Enhanced Position Location Reporting System (EPLRS)

MISSION & DESCRIPTION

EPLRS is a joint service, software programmable, networking digital radio that accomplishes two critical battlespace functions. First, EPLRS provides secure, jam resistant wireless digital connection among battlefield computers; allowing field commander's to form a joint network. Second, EPLRS provides platform position information independent of Global Position System (GPS). EPLRS aids in fratricide prevention because it is highly jam resistant and thus allows weapons platforms to see where other EPLRS are located even in a "dirty RF" battlefield environment.

The Army uses EPLRS as the "digital backbone" for the Tactical Internet in the digitized units; the six Stryker Brigades and the Counter Attack Corps. In the Army, EPLRS provides terrestrial connectivity for Force Battle Command Brigade and Below (FBCB2) and a joint link to Marines and Air Force platforms operating within the battlespace. To date, the Army has bought 10,094 EPLRS Radio Sets.

The Marine Corps uses EPLRS to connect the digitized battlefield operation centers and have fielded EPLRS throughout the Marine Corps. The Marines have bought 1,327 EPLRS Radio Sets.

The Navy uses their EPLRS Radio sets in support of Marine Amphibious operations. The Navy has procured 128 EPLRS Radio Sets for ship installations.

The Air Force's Situational Awareness Data Link (SADL) program uses modified EPLRS to provide F-16 pilots SA information on their Heads Up Display showing where EPLRS Army/Marine/ground radios are located. SADL also shares flight status information, such as on board ordinance and fuel level, between aircraft during a mission. The Air force will field about 764 EPLRS Radio Sets.



DESCRIPTION & SPECIFICATIONS

EPLRS is a computer based network radio system which provides secure, jam resistant, time division multiple access (TDMA), near real time digital communications and position location information (independent of GPS) to commanders and high priority data subscribers.

Jam resistance is provided by direct sequence spread spectrum, frequency hopping and time division multiplexing. The EPLRS radio set has embedded COMSEC, single level security and multiple data modes. Forward error correction is provided via Hamming or Reed Solomon coding techniques. EPLRS operates at UHF frequency, 420-450 MHz over 8 eight channels.

The newest generation of EPLRS hardware and software support user data rates of 288 kbps and provide a self-forming, self-healing network. The EPLRS waveform being fielded via the "EPLRS Radio Set" will be incorporated in the Joint Tactical Radio System and widely available throughout services.

Milestones (Achieved/Schedule)

- ADM	Feb 97
- JTRS waiver approved	Oct 00
- Field SBCT 1 & 2	Complete
- Last Production Option Award	FY04
- Field SBCT 3 thru 6	Continuing

Prime Contractor

Raytheon Systems Company (Fullerton, CA; Wayne, IN).

PM TRCS Points of Contact



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